REMARKS

This paper is responsive to the Office Action dated February 13, 2003, having a shortened statutory period expiring on May 13, 2003, extended to June 13, 2003, in which:

Claims **1-61** were pending in the application; and

Claims **10-35** and **37-45** were objected to; and

Claims **1-9, 36, and 46-61** were rejected.

Claims **9 and 36** have been cancelled without prejudice or disclaimer of the subject matter recited therein, no new claims have been added, and claims **10** and **37** have been amended. Accordingly, claims **1-8, 10-35, and 37-61** remain currently pending in the present application.

Formal Matters

Applicant wishes to express his appreciation for the Examiner's indication of allowability as to previously pending claims **10-35 and 37-45**, noted by the Examiner in the present Office Action.

In the present Office Action, the Examiner objected to Applicant's claim **10-35 and 37-45** as being dependent upon a rejected base claim, but indicated that the described claims would otherwise be allowable if rewritten in independent form including all limitations of their respective base claims and any intervening claims. Applicant has amended claims **10 and 37** in accordance with the Examiner's indication of allowable subject matter and therefore respectfully submits that claims **10-35** and **37-45** are allowable as amended.

Rejection of Claims under 35 U.S.C. §102

In the present Office Action, Claims 1-3, 46-48, and 54-57 were rejected under 35 U.S.C. 102(e) as being anticipated by U.S. Pat. No. 6,370,119, issued to Basso et al. (hereinafter "***Basso***"). While not conceding that the Examiner's cited reference qualifies

as prior art, but instead to expedite prosecution, Applicant has chosen to respectfully disagree and traverse the rejection as follows. Applicant reserves the right, for example, in a continuing application, to establish that one or more of the Examiner's cited references do not qualify as prior art as to an invention embodiment previously, currently, or subsequently claimed.

Applicant respectfully submits that ***Basso***, fails to teach, show, or suggest, "generating at least one path cost data set...and accessing said at least one path cost data set wherein said generating and said accessing are performed in such a manner that a minimum-hop path and a minimum-cost path can be determined from said at least one path cost data set" as claimed by Applicant. (Applicant's claim 1, as originally submitted)

In the present Office Action, the Examiner states with respect to "generating at least one path cost data set" that according to the teaching of ***Basso***, "Fig. 4 discloses a routing table, which contains information for where the optimum routes are stored. See also col. 6, lines 6-16" and that "Fig. 3 discloses a flow chart of the path computation procedure (generating at least one path cost data set). See also col. 5, lines 53-67, and col. 6 lines 1-6." Applicant respectfully disagrees.

Basso teaches a method and system for determining an optimal path for routing a communication in a communication network between a source node and at least one destination node. (***Basso***, Abstract) ***Basso*** further teaches a routing table structure (***Basso***, Fig. 4) including an additive cost field and a restrictive cost field containing the cumulative additive cost (e.g., hop count) and the overall restrictive cost (e.g., bandwidth), respectively, of an optimal path computed from the source node to a destination node. (see ***Basso***, Column 2, Lines 23-24 and Column 11, Lines 9-10)

While ***Basso*** uses the term "cost" with respect to additive and restrictive costs, Applicant submits that ***Basso*** fails to teach, show, or suggest, "generating at least one path cost data set, said path cost data set representing a path cost between a root node of said nodes and destination node of said nodes" as claimed (Applicant's claim 1, as originally submitted) and defined in Applicant's specification. More specifically, Applicant's specification at page 48, lines 25-26 states that, "For this purpose, cost is discussed in terms of quality of service" (emphasis supplied). By contrast, and as admitted by the Examiner in the most-recent Office Action, ***Basso*** teaches that, "typical

cost criteria in this approach are the minimum hop count and the minimum path length" (***Basso***, Column 1, Lines 28-29) which are unrelated to quality of service.

The Examiner further states in the present Office Action with respect to "accessing said at least one path cost data set" that after computation of optimal paths is complete, "the optimal path from the predefined source node to the predefined destination node will be retrieved from the routing table at the routing table entry corresponding to the destination node (a minimum-hop path and a minimum-cost path can be determined from at the cost path cost data set). See col. 6, lines 6-16." Applicant respectfully disagrees.

Applicant respectfully submits that ***Basso*** teaches that, "the algorithm of the invention computes the optimum route from the source node to all nodes in the network" and that, "the routing table...has one entry for each node in the network. After computation of optimal paths is complete, the optimal path from the predefined source node to the predefined destination node will be retrieved from the routing table at the table entry corresponding to the destination node." (***Basso***, Column 5, Line 64 – Column 6, Line 13, emphasis supplied) Accordingly, ***Basso*** teaches the computation, storage, and retrieval of information relating to a single, optimal path between a source and destination node and fails to teach, show, or suggest the distinct determination of "minimum-hop" and "minimum-cost" paths, or "generating" and "accessing" in such a manner that such minimum-hop and minimum-cost paths can be determined "from said at least one path cost data set" as claimed. (Applicant's claim 1, as originally submitted)

Moreover, Applicant respectfully submits that while the "optimal path" taught by ***Basso*** is described as the path that has "the lowest symmetric restrictive cost" as well as "the lowest additive cost" (***Basso***, Column 11, Lines 4-9), ***Basso*** further teaches that, "If the induced additive cost is not strictly less than the additive cost of the path already stored, then it is concluded that current link does not provide a better route (box 576). Conversely, if the induced additive cost is strictly less than the previously stored path additive cost, **then** box 575 is entered to perform a similar comparison between the induced restrictive cost and the previously stored path restrictive cost." (***Basso***, Column 9, Lines 12-23, emphasis supplied) According to the teaching of ***Basso*** therefore, a comparison of restrictive costs is only made if "the induced additive cost is strictly less

than the previously stored path additive cost." (See also, ***Basso***, boxes 574 and 575 of Figure 7)

Consequently, if it is assumed for the sake of argument that "path cost" or a "path cost data set" as claimed by Applicant is taught by the "restrictive cost" of ***Basso***, which Applicant maintains is not the case, Applicant submits that a distinct "minimum-cost" path could not be determined according to the teaching of ***Basso***, separate from a "minimum-hop path" (e.g., a path having "the lowest additive cost"). Alternatively, if it is assumed for the sake of argument that "path cost" or a "path cost data set" as claimed by Applicant is taught by the "additive cost" of ***Basso*** (along with hop count), then the two individual factors would not be distinguishable within additive cost and distinct "minimum-hop" and "minimum-cost" paths could not be determined.

Applicant therefore respectfully submits that ***Basso*** fails to teach, show, or suggest, "generating at least one path cost data set, said path cost data set representing a path cost between a root node of said nodes and destination node of said nodes," and "accessing said at least one path cost data set" wherein the generating and accessing are performed in such a manner that a minimum-hop path and a minimum-cost path can be determined "from said at least one path cost data set" as claimed. (Applicant's claim 1, as originally submitted)

Accordingly, Applicant respectfully submits that claim 1 is allowable over the Examiner's cited portions of ***Basso***. Applicant's claims 46 and 54 each include one or more elements or limitations substantially similar to those described with respect to claim 1. Accordingly, Applicant respectfully submits that independent claims 1, 46, and 54 are similarly allowable over ***Basso***. Claims 2-8, 47-53, and 55-61 depend directly or indirectly from Applicant's claims 1, 46, and 54, respectively, and are therefore allowable for at least those reasons stated for the allowability of those claims. Claims 9 and 36 have been cancelled and all rejections with respect to those claims are therefore considered moot. Claims 10-35 and 37-45 are allowable as per the Examiner's indication of allowable subject matter.

CONCLUSION

In view of the amendments and remarks set forth herein, the present application is believed to be in condition for allowance and a notice to that effect is solicited. Nonetheless, should any issues remain that might be subject to resolution through a telephonic interview, the Examiner is invited to telephone the undersigned at 512-439-5097.

I hereby certify that this correspondence is being deposited with the United States Postal Service as First Class Mail in an envelope addressed to: COMMISSIONER FOR PATENTS, P.O. Box 1450, Alexandria, V.A. 22313-1450, on 6-11-03.

Attorney for Applicant(s) — Date of Signature: 6-11-03

Respectfully submitted,

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VERSION WITH MARKINGS TO SHOW CHANGES MADE

In the Claims

The claims have been amended as follows.

Claim 9 has been cancelled without prejudice or disclaimer of the subject matter recited therein.

10. **(Amended One Time) [The method of claim 9,] A method of finding a path in a network comprising:**

creating a path table, wherein:

said path table comprises a first number of rows and a second number of columns,

said network comprises a plurality of nodes and a plurality of links,

each one of said plurality of nodes is coupled to at least one other of said plurality of nodes by at least one of said plurality of links, and

said path begins at a root node of said plurality of nodes;

processing each row in a first column of said second number of columns,

wherein said processing said each row in said first column of said second number of columns comprises:

for said each row in said first column of said second number of columns,

wherein a selected node of said plurality of nodes corresponds to said row in said first column,

if said selected node is a neighbor of said root node,

storing a first link cost in a first cost entry, wherein

said first link cost is a link cost of a first one of said plurality of links,

said first one of said plurality of links is between said root node and said selected node, and

said first cost entry is a cost entry of said row in said first column,

storing a root node identifier in a first previous node entry, wherein said root node identifier represents said root node and said first previous node entry is a previous node entry of said row in said first column, and

storing a node identifier representing said selected node in a storage area,

else,

storing a maximum cost value in said first cost entry, and

storing a null value in said first previous node entry

said processing each row in said first column of said second number of columns resulting in said first column containing corresponding first connectivity information; and

processing each remaining column, wherein

said each remaining column is a one of said second number of columns other than said first column, and

said processing each remaining column resulting in said first column containing corresponding subsequent connectivity information.

Claim 36 has been cancelled without prejudice or disclaimer of the subject matter recited therein.

37. **(Amended One Time) [The method of claim 36,] A method of finding a path in a network comprising:**

creating a path vector, wherein:

said path vector comprises a first number of rows,

said network comprises a plurality of nodes and a plurality of links,

each one of said plurality of nodes is coupled to at least one other of said plurality of nodes by at least one of said plurality of links, and

said path begins at a root node of said plurality of nodes;

for a first hop of a maximum number of hops, processing each row in said first number of rows for said first hop, a selected node of said plurality of nodes corresponding to said row wherein said processing each row in said first number of rows for said first hop comprises:

for said first hop of said maximum number of hops,

for each row in said first number of rows, a selected node of said plurality of nodes corresponding to said row,

if said selected node is a neighbor of said root node,

storing a first link cost in a first cost entry, wherein

said first link cost is a link cost of a first one of said plurality of links,

said first one of said plurality of links is between said root node and said selected node, and

said first cost entry is a cost entry of said row, and

storing a node identifier representing said selected node in a storage area,

else

storing a maximum cost value in said first cost entry**, and for each remaining hop of said maximum number of hops, processing said each row in said first number of rows for said each remaining hop**.